



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Kiyoshi WASHINO et al.

Application No.: 09/543,011

Filed: April 4, 2000

For: FRAME KIT FOR IC CARD AND IC CARD USING THE SAME

Attorney Docket No.: AIA-0117

Examiner: T. Dinh

Art Unit: 2827

Confirmation No. 5710

AMENDMENT UNDER 37 C.F.R. §1.111

Commissioner for Patents
Washington, DC 20231

Sir:

In response to the non-final Office Action dated August 14, 2002, the period for response being extended to December 14, 2002, by the Petition for Extension of Time filed herewith, please amend the above-identified application as follows:

IN THE CLAIMS:

Please amend claim 1 as set forth below in clean form. Additionally, in accordance with 37 CFR 1.121(c)(1)(ii), amended claim(s) is/are set forth in a marked-up version in the page(s) attached to this Amendment.

1. (Four Times Amended) A frame kit for an IC card, comprising:

a generally U-shaped frame fabricated from an injection molding material and having an inner wall defining an internal space;

a first panel fabricated from metal material and including a L-shaped locking member having a hanging portion and a locking claw portion with the hanging portion and a rear segment of the locking claw portion embedded and held in the frame to connect the first panel to the frame, where a front segment of the locking claw portion projects out from the inner wall and into the internal space; and

a second panel fabricated from metal material and having an engaging locking member having an engaging hole which is engageable with the front segment of the locking claw portion to connect the second panel to the frame.

Please add claim 31 as follows:

--31. (New) A frame kit for an IC card, comprising:

 a generally U-shaped frame fabricated from an injection molding material and having an inner wall defining an internal space confined within the frame;

 a first panel fabricated from metal material and including a L-shaped locking member having a hanging portion and a locking claw portion with the hanging portion and a rear segment of the locking claw portion connected to the hanging portion being integrally molded with the frame such that the first panel is connected to the frame as a result of the hanging portion and the rear segment being embedded into and thereby held in the frame, wherein a front segment of the locking claw portion connected to and extending from the rear segment projects out from the inner wall and into the internal space; and

 a second panel fabricated from metal material and having an engaging locking member having an engaging hole which is engageable with the front segment of the locking claw portion to connect the second panel to the frame such that, when the engaging locking member and the engaging hole are engaged, the engaging hole receives the front segment and the engaging locking member surrounds the front segment of the locking claw portion and facially contacts the inner wall of the frame.--

REMARKS

Claims 1, 2, 4, 5, 7-12, 14, 15, 17-26 and 28-31 are pending in the application. By this Amendment, claim 1 is amended and claim 31 is added.

Claims 1, 4, 5, 7-10, 21, 25 and 28-30 are rejected under 35 U.S.C. 102 (e) as anticipated by Onoda et al. (U.S. Patent No. 5,994,769). The rejection is respectfully traversed.

Onoda teaches an IC card that includes an electrical circuit board in which at least one electronic component is incorporated, a connector to be connected to an end portion of the electrical circuit board, a frame which constitutes an outer frame of the IC card and a pair of metal panels which cover of sides of the IC card. A plurality of projections engage with each other and are provided on side edge portions of each

metal panel. A plurality of slits into which the projections are to be pressed are provided to the frame. The projections of one metal panel are pressed into the slits. Corresponding projections of the outer metal panel are engaged with the projections of the other metal panel.

Claim 1 is directed to a frame kit for an IC card and includes a frame, a first panel and a second panel. The frame is generally U-shaped and is fabricated from an injection molding material. The frame has an inner wall defining an internal space. Claim 1 recites that the first panel is fabricated from metal material and includes a L-shaped locking member having a hanging portion and a locking claw portion forming the L-shape. Claim 1 further recites that the hanging portion and a rear segment of the locking claw portion are embedded and held in the frame to connect the first panel member to the frame. Claim 1 further recites that a front segment of the locking claw portion projects out from the inner wall and into the internal space. Additionally, claim 1 recites that the second panel is fabricated from metal material and has an engaging locking member having an engaging hole. Claim 1 also recites that the engaging hole is engageable with the front segment of the locking claw portion.

It is respectfully submitted that the rejection is improper because the applied art fails to teach each element of claim 1. Specifically, the applied art fails to teach a generally U-shaped frame and a L-shaped locking member having a hanging portion and a locking claw portion with the hanging portion and a rear segment of the locking claw portion embedded and held in the frame to connect the first panel to the frame. Further, the applied art fails to teach a front segment of the locking claw portion projecting out from an inner wall of the frame into an internal space defined by an inner wall of the frame.

The Office Action erroneously states on page 2, last line through page 3, line 4, that "the hanging portion and a near [rear] of a locking portion are embedded and held in the frame (see figure 5) to connect the first panel to the frame (see figure 6), where a front engagement of the locking claw portion projection [projects] out from the linear [?], where a front segment of the locking claw portion projects form [from] the inner wall and into the internal space (see figures 5-7)." It is respectfully submitted that none of these

figures in applied art teaches that a hanging portion and a rear segment of a locking claw portion are embedded and held in the frame to connect the first panel member to the frame nor does any of these figures teach a front segment of the locking claw portion projecting out from an inner wall of the frame into an internal space defined by an inner wall of the frame.

For at least these reasons, it is respectfully submitted that claim 1 is allowable over the applied art.

Claim 25 is directed to a frame for an IC card. Like claim 1, claim 25 recites a generally U-shaped frame body (analogous to the generally U-shaped frame in claim 1) and a panel (analogous to the first panel in claim 1). The recited features in claim 25 for the generally U-shaped frame body and the panel are identical to the features recited in claim 1 and, thus, the arguments for allowability are identical to those recited above for claim 1. Thus, it is respectfully submitted that claim 25 is allowable for the reasons claim 1 is allowable.

Claims 4, 5, 7-10 and 21 depend from claim 1 and include all of the features of claim 1. Claims 28-30 depend from claim 25 and include all of the features of claim 25. Thus, the dependent claims are allowable at least for the reasons the independent claims are allowable as well as for the features they recite.

For instance, claim 8 recites that the first panel is integrated with the frame in a state where an area where an erroneous insertion preventing key is formed. Claim 9 recites that the second panel has a positioning member which is abutted against the inner wall of the frame for positioning the second panel with respect to the frame. Claim 10 recites that the positioning member is an elastic positioning member. Claim 21 recites that the erroneous in search and key has a width that differs along an outer surface of the frame. Claim 30 recites an erroneous insertion preventing key for preventing the IC card from being inserted in a wrong posture into an IC card slot. For these additional reasons, the dependent claims are allowable over the applied art.

Withdrawal of the rejection is respectfully requested.

Claims 11, 14, 15, 17-20 and 22-24 are rejected under 35 U.S.C. 103(a) as unpatentable over Onoda. The rejection is respectfully traversed.

Claim 11 is directed to an IC card that includes a frame, a first panel, a second panel and a circuit board assembly. The frame is fabricated from an injection molding material and has an inner wall defining an internal space for the IC card. Claim 1 recites that the first panel is fabricated from metal material and has a L-shaped locking member. Claim 11 further recites that the locking member has a hanging portion and a locking claw portion forming the L-shape. Also, claim 11 recites that the hanging wall portion and a rear segment of the locking claw portion are embedded and held in the frame to connect the first panel member to the frame. Further, claim 11 recites that a front segment of the locking claw portion projects into the internal space from the inner wall of the frame. Additionally, claim 11 recites that the second panel is fabricated from metal material and has an engaging locking member having an engaging hole. Also, claim 11 recites that the engaging hole is engageable with the front segment of the claw portion inside the frame. Additionally, claim 11 recites that the engaging locking member includes a guiding portion that extends obliquely toward the internal space. The circuit board assembly is constructed by mounting a connector on the circuit board with the circuit board assembly being contained between the first panel and a second panel.

It is respectfully submitted that the rejection is improper because the applied art fails to teach or suggest the features of claim 11. Specifically, the applied art fails to teach a first panel having a L-shaped locking member that has a hanging portion and a locking claw portion forming the L-shape with the hanging portion and a rear segment of the locking claw portion being embedded and held in the frame to connect the first panel to the frame. Further, the applied art fails to teach a front segment of the locking claw portion projecting into the internal space from the inner wall of the frame. Thus, one of ordinary skill in the art would not be motivated to modify the features of the applied art because the applied art is devoid these features. Therefore, claim 11 is allowable over the applied art.

Claims 14, 15, 17-20, 22 and 24 depend from claim 11 and include all of the features of claim 11. Claim 23 depends from claim 1 and includes all of the features of claim 1. Thus, the dependent claims are allowable at least for the reasons claim 11 is

allowable as well as for the features they recite.

For instance, claim 18 recites an erroneous insertion preventing key. Claim 19 recites that the second panel has a positioning member which is abutted against the inner wall of the frame for positioning the second panel with respect to the frame. Claim 20 recites that positioning member is an elastic positioning member which is elastically abutted against the inner wall of the frame. Claim 22 recites that the erroneous insertion key has a width that differs along an outer surface of frame. Claim 24 recites that an engaging locking member includes a guiding portion disposed forwardly of the engaging hole and guides the engaging hole towards the front segment of the locking claw portion. For these additional reasons, the dependent claims are allowable over the applied art.

Withdrawal of the rejection is respectfully requested.

Claims 2, 12 and 26 are rejected under 35 U.S.C. 103(a) as unpatentable over Onoda in view of Cox et al. (U.S. Patent No. 6,191,950). The rejection is respectfully traversed.

Cox teaches a snap-together printed circuit card cover with an integral card support.

Claim 2 depends from claim 1 and includes all of the features of claim 1. Claims 12 depends from claim 11 and includes all of the features of claim 11. Claim 26 depends from claim 25 and includes all of the features of claim 25. For at least the reasons the independent claims are allowable, it is respectfully submitted that the dependent claims are also allowable as well as for the features they recite.

Withdrawal of the rejection is respectfully requested.

Newly-added claim 31 also includes features not shown or suggested in the applied art.

In view of the foregoing, reconsideration of the application and allowance of the pending claims are respectfully requested. Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

Should additional fees be necessary in connection with the filing of this paper or if a Petition for Extension of Time is required for timely acceptance of the same, the Commissioner is hereby authorized to charge Deposit Account No. 18-0013 for any such fees and Applicant(s) hereby petition for such extension of time.

Respectfully submitted,

By:


Carl Schaukowitch
Reg. No. 29,211

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RADER, FISHMAN & GRAUER PLLC
1233 20th Street, N.W. Suite 501
Washington, D.C. 20036
Tel: (202) 955-3750
Fax: (202) 955-3751
Customer No. 23353

Enclosure(s): Appendix I (Marked-Up Version of Amended Claims)
 Petition for Extension of Time (one month)

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